



Monthly Wholesale Trade

Sales and Inventories

February 1998

BW/98-02

Issued April 1998

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES

February 1998

Intention to Revise Wholesale Estimates: Monthly wholesale data will be revised based on the results of the 1996 Annual Trade Survey. Unadjusted sales, inventories, and inventories/sales ratios will be revised for January 1993 through February 1998, while corresponding adjusted data will be revised for January 1990 through February 1998. Revised data are scheduled for release May 6.

Sales. February 1998 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$213.9 billion, up 0.5 percent (+/- 0.8%) from the revised January level and were 1.3 percent (+/-0.9%) above the February 1997 level. The January preliminary estimate was revised downward by \$0.6 billion or 0.3 percent. February sales of durable goods increased 0.6 percent (+/-1.1%) from January and were 3.0 percent (+/-1.3%) above last year. Among nondurable goods, sales of drugs, drug proprietaries and druggists' sundries rose 4.3 percent from last month, while farm-product raw materials fell 5.4 percent.

Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$274.3 billion at the end of February, up 1.1 percent (+/-0.5%) from the revised January level and were 6.5 percent (+/-0.9%) above February 1997. The January preliminary estimate was revised downward by \$0.04 billion. End-of-month inventories of durable goods increased 1.2 percent (+/-0.6%) from last month and

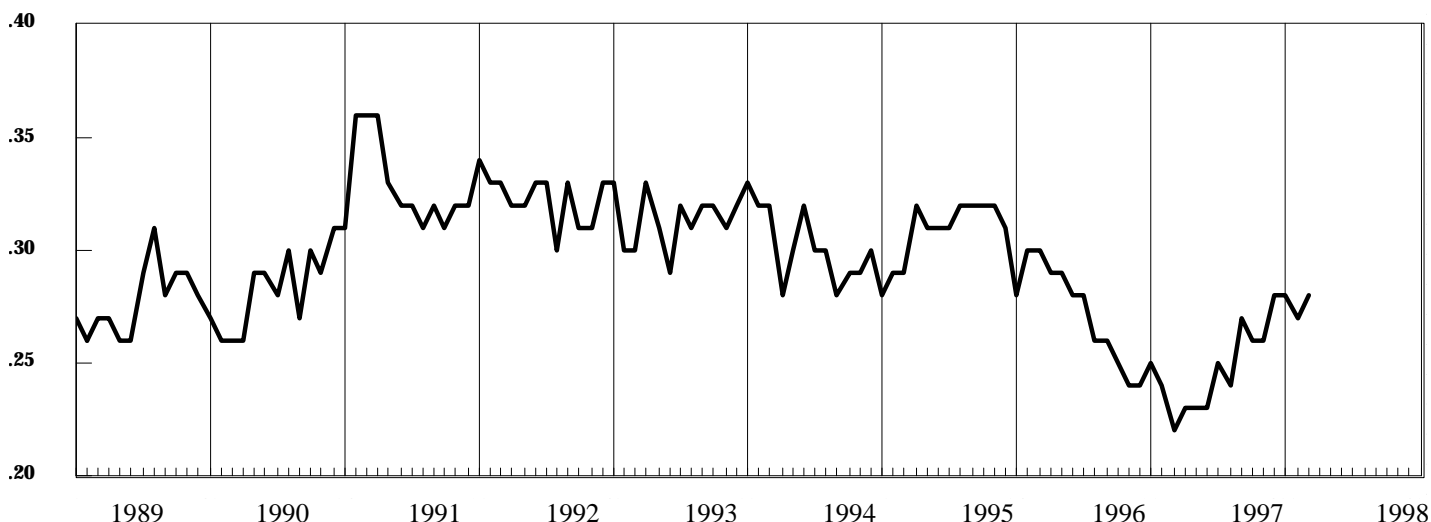
were 6.9 percent (+/-1.1%) above February 1997. Compared to last month, inventories of hardware, plumbing, and heating equipment increased 2.0 percent, while lumber and other construction materials decreased 1.0 percent. End-of-month inventories of nondurable goods were up 1.1 percent (+/-0.6%) from last month and were 5.7 percent (+/-1.4%) above a year ago. Compared to last month, inventories of paper and paper products rose 4.3 percent, while farm-product raw materials fell 5.7 percent.

Inventories/Sales Ratio. The February inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.28. The February 1997 ratio was 1.22.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/96-RV Current Business Report.

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1989 to 1998

(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for March is scheduled to be released May 7, 1998 at 10:00 a.m.

Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Pienykoski, (301) 457-2779 or 457-2764. For sale by the

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1998 and 1997

[In millions of dollars]

SIC ¹ code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change					
		Feb. 1998 (p)	Jan. 1998 (r)	Feb. 1997 (r)	Feb./ Jan.	Jan./ Dec.	Feb. 98 Feb. 97	Feb. 1998 (p)	Jan. 1998 (r)	Feb. 1997 (r)	Feb./ Jan.	Jan./ Dec.	Feb. 98 Feb. 97	Feb. 1998 (p)	Jan. 1998 (r)	Feb. 1997 (r)
Adjusted ²																
	U.S. Total	213,901	212,760	211,087	0.5	0.0	1.3	274,306	271,188	257,630	1.1	-0.5	6.5	1.28	1.27	1.22
50	Durable	111,556	110,914	108,278	0.6	0.7	3.0	174,034	171,975	162,755	1.2	0.4	6.9	1.56	1.55	1.50
501	Automotive	18,198	18,034	18,120	0.9	2.9	0.4	28,441	28,294	26,644	0.5	0.3	6.7	1.56	1.57	1.47
502	Furniture	3,637	3,718	3,802	-2.2	3.0	-4.3	5,345	5,334	5,103	0.2	1.3	4.7	1.47	1.43	1.34
503	Lumber	7,347	7,400	7,508	-0.7	-0.2	-2.1	7,671	7,750	7,804	-1.0	2.1	-1.7	1.04	1.05	1.04
504	Prof. equip.	22,479	22,184	20,710	1.3	-2.8	8.5	24,696	24,311	22,425	1.6	1.9	10.1	1.10	1.10	1.08
505	Metals	8,847	8,822	8,777	0.3	-2.6	0.8	14,172	13,951	13,302	1.6	1.0	6.5	1.60	1.58	1.52
506	Electrical	14,893	14,749	14,635	1.0	-1.2	1.8	24,179	23,903	23,313	1.2	-1.0	3.7	1.62	1.62	1.59
507	Hardware	6,678	6,710	6,192	-0.5	5.9	7.8	13,022	12,769	12,212	2.0	2.6	6.6	1.95	1.90	1.97
508	Machinery	17,328	17,186	16,023	0.8	4.4	8.1	39,668	39,149	35,990	1.3	-1.1	10.2	2.29	2.28	2.25
509	Other Durable	12,149	12,111	12,511	0.3	1.2	-2.9	16,840	16,514	15,962	2.0	0.4	5.5	1.39	1.36	1.28
51	Nondurable	102,345	101,846	102,809	0.5	-0.7	-0.5	100,272	99,213	94,875	1.1	-2.0	5.7	0.98	0.97	0.92
511	Paper	7,632	7,736	7,467	-1.3	1.8	2.2	9,769	9,364	8,788	4.3	-3.1	11.2	1.28	1.21	1.18
512	Drugs	11,608	11,125	9,387	4.3	4.7	23.7	16,434	16,048	13,749	2.4	1.8	19.5	1.42	1.44	1.46
513	Apparel	7,834	7,747	7,412	1.1	4.3	5.7	12,619	13,124	12,060	-3.8	0.0	4.6	1.61	1.69	1.63
514	Groceries	28,261	27,487	27,237	2.8	0.2	3.8	18,444	17,835	17,685	3.4	1.0	4.3	0.65	0.65	0.65
515	Farm-products	9,008	9,524	10,188	-5.4	-4.5	-11.6	9,319	9,885	9,588	-5.7	-5.8	-2.8	1.03	1.04	0.94
516	Chemicals	4,775	4,829	4,567	-1.1	2.0	4.6	4,822	4,973	4,710	-3.0	0.5	2.4	1.01	1.03	1.03
517	Petroleum	13,008	13,022	15,978	-0.1	-7.3	-18.6	4,947	5,000	5,446	-1.1	-2.4	-9.2	0.38	0.38	0.34
518	Alcohol	4,882	4,802	4,685	1.7	-6.7	4.2	5,205	5,205	4,897	0.0	1.8	6.3	1.07	1.08	1.05
519	Other Nondur.	15,337	15,574	15,888	-1.5	0.0	-3.5	18,713	17,779	17,952	5.3	-7.9	4.2	1.22	1.14	1.13
Not Adjusted														Sales to date		
	U.S. Total	195,994	199,799	193,344	-1.9	-7.7	1.4	277,649	276,409	261,022	0.4	1.3	6.4	395,793	392,593	
50	Durable	101,223	101,598	98,118	-0.4	-8.7	3.2	174,566	171,888	163,282	1.6	1.8	6.9	202,821	196,655	
501	Automotive	16,651	16,465	16,580	1.1	-7.2	0.4	29,607	28,718	27,736	3.1	5.7	6.7	33,116	32,970	
502	Furniture	3,241	3,302	3,384	-1.8	-8.9	-4.2	5,243	5,195	5,011	0.9	1.5	4.6	6,543	6,683	
503	Lumber	6,201	6,246	6,329	-0.7	-4.2	-2.0	7,748	7,618	7,890	1.7	2.1	-1.8	12,447	12,670	
504	Prof. equip.	20,546	21,075	18,908	-2.5	-14.5	8.7	24,449	24,651	22,201	-0.8	2.4	10.1	41,621	38,254	
505	Metals	8,378	8,478	8,294	-1.2	-1.5	1.0	14,158	14,091	13,275	0.5	0.8	6.7	16,856	16,763	
506	Electrical	13,597	13,525	13,347	0.5	-8.9	1.9	24,227	23,951	23,360	1.2	1.1	3.7	27,122	26,894	
507	Hardware	5,723	5,985	5,313	-4.4	-0.3	7.7	12,996	12,590	12,188	3.2	2.2	6.6	11,708	10,844	
508	Machinery	16,098	15,949	14,853	0.9	-6.0	8.4	39,668	38,758	36,026	2.3	-0.6	10.1	32,047	29,485	
509	Other Durable	10,788	10,573	11,110	2.0	-14.1	-2.9	16,470	16,316	15,595	0.9	1.6	5.6	21,361	22,092	
51	Nondurable	94,771	98,201	95,226	-3.5	-6.6	-0.5	103,083	104,521	97,740	-1.4	0.6	5.5	192,972	195,938	
511	Paper	7,243	7,721	7,064	-6.2	0.4	2.5	9,759	9,551	8,797	2.2	-3.5	10.9	14,964	14,578	
512	Drugs	10,703	11,392	8,645	-6.0	0.6	23.8	16,746	17,300	14,024	-3.2	6.8	19.4	22,095	18,392	
513	Apparel	7,912	7,143	7,471	10.8	18.7	5.9	12,745	13,662	12,169	-6.7	3.9	4.7	15,055	14,365	
514	Groceries	25,661	26,745	24,704	-4.1	-6.1	3.9	17,928	17,853	17,190	0.4	-0.2	4.3	52,406	51,239	
515	Farm-products	8,666	10,219	9,811	-15.2	-7.3	-11.7	11,332	12,593	11,697	-10.0	-0.8	-3.1	18,885	20,772	
516	Chemicals	4,469	4,621	4,275	-3.3	4.0	4.5	4,894	4,948	4,785	-1.1	0.4	2.3	9,090	8,735	
517	Petroleum	12,488	13,191	15,307	-5.3	-12.3	-18.4	4,863	4,985	5,348	-2.4	-6.6	-9.1	25,679	32,824	
518	Alcohol	3,979	3,760	3,809	5.8	-36.3	4.5	4,924	4,872	4,647	1.1	3.5	6.0	7,739	7,555	
519	Other Nondur.	13,650	13,409	14,140	1.8	-11.5	-3.5	19,892	18,757	19,083	6.1	-1.9	4.2	27,059	27,478	

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

*Combined Annual and Revised Monthly Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet
– <http://www.census.gov/svsd/www/mwts.html>.

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to Year Estimates		Cumulative sales estimates		Current year cumulative
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	CY	PY	to previous year cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.0	1.4	1.1	1.4	0.4	0.2	0.7	1.4	1.0	0.4	0.2
50	Durable	2.1	2.2	2.1	2.2	0.7	0.3	1.4	2.0	2.3	2.5	0.7
501	Automotive	4.0	5.4	4.1	5.4	1.2	1.0	3.3	4.1	4.3	3.8	2.0
502	Furniture	6.1	7.2	6.2	7.3	2.2	1.0	4.6	10.3	6.7	5.6	2.9
503	Lumber	4.9	5.8	5.1	5.9	1.2	0.9	4.5	5.5	5.4	5.7	2.8
504	Prof. equip.	5.6	6.5	5.8	6.7	1.4	0.7	4.2	4.5	6.2	6.1	2.3
505	Metals	4.6	9.2	4.6	9.2	1.3	0.7	2.8	10.2	4.5	4.1	1.5
506	Electrical	5.0	4.4	5.0	4.3	1.4	0.5	3.4	2.9	6.1	4.8	1.9
507	Hardware	5.0	4.8	4.8	4.7	1.3	0.5	6.0	5.0	5.5	4.7	1.8
508	Machinery	5.6	4.8	5.6	4.8	1.7	0.5	4.8	5.2	6.2	6.5	2.5
509	Other Durable	4.7	6.9	4.9	6.9	1.5	0.8	2.6	5.7	5.6	4.7	2.1
51	Nondurable	1.9	2.1	1.9	2.1	0.6	0.3	1.3	1.4	1.7	0.3	0.3
511	Paper	3.9	3.7	4.1	3.9	1.1	0.4	3.5	4.7	4.5	0.1	0.1
512	Drugs	5.7	5.1	5.6	5.1	0.6	0.4	3.3	2.1	6.2	5.4	1.8
513	Apparel	5.3	7.8	5.1	7.9	2.1	0.8	3.7	5.4	6.1	5.1	2.3
514	Groceries	3.1	5.2	3.2	5.1	0.9	0.6	1.8	4.9	2.9	2.9	0.9
515	Farm-products	5.4	8.0	5.3	7.8	2.4	1.6	3.1	4.4	4.2	4.0	1.8
516	Chemicals	5.9	5.7	5.9	5.5	1.3	0.6	4.4	3.3	6.0	5.6	2.1
517	Petroleum	6.1	13.9	5.9	14.0	1.0	1.0	3.7	12.2	5.8	5.0	1.7
518	Alcohol	6.4	6.0	6.4	6.1	1.7	1.3	7.6	5.6	6.4	6.8	1.1
519	Other Nondur.	6.0	5.7	6.0	5.7	2.0	0.9	5.6	5.2	6.8	6.0	3.1

Note: The median measures of variability are based on the most recent 12 months of data.

Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is $\pm 1.65 \times 0.9\%$ or $\pm 1.5\%$, and the 90% confidence interval is -0.3% to $+2.7\%$. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value $\pm 1.65 \times CV \times$ (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample, (2) inability to obtain

information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

Official Business

Penalty for Private Use, \$300

Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC code	Kind of business	Sales					Inventories						
		1998			1997		1997		1998			1997	
		Mar.	Feb.r	Jan.r	Dec.	Nov.	Feb.r	Mar.	Feb.r	Jan.r	Dec.	Nov.	Feb.r
	U.S. Total¹	1.035	0.915	0.940	1.017	0.949	0.915	1.005	1.013	1.021	1.003	1.008	1.013
50	Durable	1.050	0.905	0.913	1.008	0.949	0.904	0.998	1.002	0.999	0.986	0.994	1.003
501	Automotive	1.094	0.915	0.913	1.013	0.953	0.915	0.998	1.041	1.015	0.963	1.013	1.041
502	Furniture	1.032	0.891	0.888	1.005	0.992	0.890	0.997	0.981	0.974	0.972	0.990	0.982
503	Lumber	1.003	0.844	0.844	0.880	0.914	0.843	1.038	1.010	0.983	0.983	0.971	1.011
504	Prof. equip.	1.057	0.914	0.950	1.079	0.927	0.913	0.996	0.990	1.014	1.009	1.009	0.990
505	Metals	1.074	0.947	0.961	0.950	0.909	0.945	1.010	0.999	1.010	1.012	0.972	0.998
506	Electrical	1.044	0.913	0.917	0.995	0.982	0.912	0.974	1.002	1.002	0.981	0.988	1.002
507	Hardw are	0.968	0.857	0.892	0.947	0.963	0.858	1.011	0.998	0.986	0.990	0.987	0.998
508	Machinery	1.084	0.929	0.928	1.031	0.908	0.927	1.006	1.000	0.990	0.985	0.992	1.001
509	Other Durable	1.014	0.888	0.873	1.028	1.054	0.888	0.956	0.978	0.988	0.977	0.993	0.977
51	Nondurable	1.025	0.927	0.968	1.026	0.946	0.927	1.018	1.028	1.059	1.031	1.033	1.029
511	Paper	1.032	0.949	0.998	1.012	0.927	0.946	1.001	0.999	1.020	1.024	1.020	1.001
512	Drugs	1.021	0.922	1.024	1.066	0.949	0.921	0.995	1.019	1.078	1.027	1.010	1.020
513	Apparel	1.096	1.010	0.922	0.810	0.945	1.008	0.970	1.010	1.041	1.002	0.963	1.009
514	Groceries	1.010	0.908	0.973	1.039	0.978	0.907	0.982	0.972	1.001	1.013	1.036	0.972
515	Farm-products	1.062	0.962	1.073	1.105	0.977	0.963	1.117	1.216	1.274	1.210	1.233	1.220
516	Chemicals	1.043	0.936	0.957	0.938	0.926	0.936	1.021	1.015	0.995	0.996	0.986	1.016
517	Petroleum	0.999	0.960	1.013	1.071	0.948	0.958	0.966	0.983	0.997	1.042	1.022	0.982
518	Alcohol	0.947	0.815	0.783	1.148	0.995	0.813	0.978	0.946	0.936	0.921	1.074	0.949
519	Other Nondur.	1.056	0.890	0.861	0.973	0.879	0.890	1.055	1.063	1.055	0.990	0.994	1.063



r Revised

1 Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.